

Amended Claims

1. A process for producing plane-parallel platelets,  
 5 comprising the steps of:  
     a) coating a partial surface of a rigid carrier  
     rotatable about an axis (5) and located in a vacuum chamber  
     with a separating agent and subsequently with at least one  
     product layer,  
 10      b) transporting said partial surface through rotation  
     of said carrier (5) subsequently to step a),  
     c) stripping said product layer from said partial  
     surface of said carrier located in said vacuum chamber  
     carriers subsequently to step b) through dissolving or  
 15 melting said separating agent layer, in such a way that  
     plane-parallel platelets are produced.
  
2. The process according to claim 1, wherein coating  
 in step a) is carried out with an inorganic separating  
 20 agent.
  
3. The process according to claim 1 or 2, wherein in  
 step a) at least two product layers are applied on said  
 partial surface of said carrier (5).  
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4. The process according to any one of claims 1 to  
 3, wherein steps a) to c) are performed during one rotation  
 of said carrier (5).
  
- 30 5. The process according to any one of claims 1 to  
 3, wherein steps a) and b) are performed during at least  
 two rotations of said carrier (5) and are followed by step  
 c).
  
- 35 6. The process according to any one of the preceding  
 claims, wherein steps a), b) and c) are performed

continuously and simultaneously on different partial surfaces of said carrier at a same angular velocity of said carrier.

5           7.       The process according to any one of the preceding claims, wherein a method of coating under vacuum is used in step a).

10           8.       Apparatus for producing plane-parallel platelets, in particular for implementing the process according to any one of the preceding claims, comprising  
            a rigid carrier (5) rotatable about an axis and located in a vacuum chamber,

            means (9a, 9b, 9c) for coating a partial surface of  
15   said carrier (5) with at least one product layer,  
            means for coating said carrier with a separating agent layer prior to application of said product layer.

            means (13) for stripping said product layer from said partial surface of said carrier by dissolving or melting  
20   said separating agent layer in such a way that plane-parallel platelets are produced,

            with transport of said partial surface between said coating means (9a, 9b, 9c) and said stripping means (13) being effected through rotation of said carrier (5).

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            9.       Apparatus according to claim 8, wherein said carrier (5) is located in a vacuum chamber, and an intermediate separation (12a, 12b) for creating two pressure stages is provided between said means for coating  
30   with said product layer and said stripping means (13).

            10.      Apparatus according to claim 8 or 9, wherein said separating agent is an inorganic separating agent which may be evaporated in vacuum without dissociation,  
35      said product layers include metals, oxides, fluorides or carbides, and

said carrier (5) comprises metal, glass, enamel, ceramic, or an organic material.

11. The apparatus according to any one of claims 7 to 10, wherein said carrier (5) comprises an open or closed, rotationally symmetrical, rigid body.

12. The apparatus according to any one of claims 7 to 10, wherein said carrier (5) comprises several open or closed, rotationally symmetrical, rigid bodies which rotate about a common axis or about several axes.

13. The apparatus according to claim 12, wherein said carrier (5) comprises several parallel discs of which at least one may be coated face-and-back by said coating means.

14. The process according to claim 1, wherein said partial surface of said carrier (5) is coated with an organic separating agent in step a) prior to application of said product layer, and said separating agent layer is melted in step c).

15. The process according to claim 14, wherein in step a) said partial surface of said carrier (5) is liquid-coated by dipping, rolling, pouring or spraying, in the further course of the rotating movement of said carrier (5) said separating agent layer solidifies on said carrier through cooling of said carrier, is subsequently vapor deposition coated with one or several product layers in high vacuum, and afterwards in step c) said separating agent layer is melted, wherein said product layer located thereon falls apart into flakes, to then be present as a mixture in said separating agent.

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16. The apparatus according to claim 8 or 9,  
comprising means for coating said carrier with a separating  
agent layer prior to application of said product layer,  
wherein

5       said separating agent is a melttable organic separating  
agent,

      said product layers include metals, oxides, fluorides  
or carbides, and

      said carrier (5) comprises metal, glass, enamel,  
10     ceramic, or an organic material.